

Application No. 09/743,364
Amdt dated May 13, 2003
Attorney Docket No. 702-002197

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-16 (canceled).

Claim 17 (previously added): A chemotaxis-inhibiting protein of *Staphylococcus* (CHIPS protein), which is characterized by:

- (a) a molecular weight of about 17 kD;
- (b) the N-terminal amino acid sequence as given in figure 4 (SEQ ID NO: 1); and
- (c) a biological activity which consists of the capacity to prevent the binding of fMLP and/or C5a to granulocytes in a test as described in example 1, under 1.2, and fragments thereof that have the biological activity as defined under (c).

Claim 18 (currently amended): A biologically active substance comprising a substance selected from the group consisting of the CHIPS protein having a biological activity which consists of the capacity to prevent the binding of fMLP and/or C5a to granulocytes in a test as described in example 1, under 1.2, and fragments thereof that have said biological activity and biologically active fragments thereof.

Claim 19 (previously amended): A medicine comprising a substance selected from the group consisting of the CHIPS protein having a biological activity which consists of the capacity to prevent the binding of fMLP and/or C5a to granulocytes in a test as described in example 1, under 1.2, and fragments thereof that have said biological activity and biologically active fragments thereof.

Claim 20 (previously amended): A method of treatment of acute and chronic inflammation reactions and HIV infection comprising administration of a substance selected from the group consisting of the CHIPS protein having a biological activity which consists of the capacity to prevent the binding of fMLP and/or C5a to granulocytes in a test as described in example 1, under 1.2, and fragments thereof that have said biological activity and biologically active fragments thereof.

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Claim 21 (previously amended): Antibodies against a substance selected from the group consisting of the CHIPS protein having a biological activity which consists of the capacity to prevent the binding of fMLP and/or C5a to granulocytes in a test as described in example 1, under 1.2, and fragments thereof that have said biological activity and biologically active fragments thereof.

Claim 22 (previously amended): A method for the treatment of *Staphylococcus* infection comprising the administration of antibodies against a substance selected from the group consisting of the CHIPS protein having a biological activity which consists of the capacity to prevent the binding of fMLP and/or C5a to granulocytes in a test as described in example 1, under 1.2, and fragments thereof that have said biological activity and biologically active fragments thereof.

Claim 23 (previously amended): A therapeutic composition comprising a suitable excipient and a substance selected ~~form~~ from the group consisting of the CHIPS protein having a biological activity which consists of the capacity to prevent the binding of fMLP and/or C5a to granulocytes in a test as described in example 1, under 1.2, and fragments thereof that have said biological activity and biologically active fragments thereof.

Claim 24 (previously added): The composition as claimed in claim 23 for treating acute and chronic inflammation reactions and HIV infection.

Claim 25 (previously amended): A therapeutic composition comprising a suitable excipient and one or more antibodies against a substance selected from the group consisting of the CHIPS protein having a biological activity which consists of the capacity to prevent the binding of fMLP and/or C5a to granulocytes in a test as described in example 1, under 1.2, and fragments thereof that have said biological activity and biologically active fragments thereof.

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Claim 26 (previously added): A method of purifying the CHIPS protein as claimed in claim 17, comprising the steps of:

- (a) guiding over an absorption chromatography column the culture supernatant of *Staphylococcus aureus* or a liquid obtained therefrom after pre-purification;
- (b1) subsequently guiding the flow-through of the absorption chromatography column first over an affinity chromatography column and thereafter guiding the eluate of the affinity chromatography column over a DNA column; or
- (b2) subsequently guiding the flow-through of the absorption chromatography column first over a DNA column and thereafter guiding the flow-through of the DNA column over an absorption chromatography column; and
- (c) guiding the flow-through of the last column of step (b1) respectively the eluate of the last column of step (b2) over a gel filtration column and selecting the fraction with a molecular weight of about 17 kD.

Claim 27 (previously added): The method as claimed in claim 26, wherein the affinity chromatography column is a Ligand Dye "yellow" column, the absorption chromatography column is a Ligand Dye "green" column and the DNA column a DNA cellulose column.

Claim 28 (previously added): A method of determining the activity of the CHIPS protein and/or the biologically active fragments thereof as claimed in claim 17 or proteins with an analogous function, comprising the steps of:

- (a) introducing into a first compartment labeled cells capable of chemotaxis, in particular leucocytes;
- (b) introducing one or more chemoattractants into a second compartment separated from the first compartment by a membrane permeable to at least the cells;
- (c) placing the protein for testing into the first compartment; and
- (d) measuring the quantity of label in the second compartment after a determined time.

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Claim 29 (previously added): The method of determining the chemotaxis-modulating activity of a substance, comprising the method steps as claimed in claim 28, wherein the substance for testing replaces the protein of step (c).

Claim 30 (previously added): A method of determining the activity of the CHIPS protein and/or the biologically active fragments thereof as claimed in claim 17 or molecules, such as proteins, with an analogous activity, comprising the steps of:

- (a) incubating granulocytes suspended in a medium with CHIPS-containing material for a determined time;
- (b) washing the granulocytes with fresh medium and resuspending the granulocytes in such medium;
- (c) incubating the granulocytes with fMLP and/or C5a that is labeled with a detectable label in order to effect binding of the labeled fMLP and/or C5a to the granulocytes;
- (d) washing away the unbound detectable label; and
- (e) analysing the binding of the labeled fMPL and/or C5a to the granulocytes by measuring the detectable label.

Claim 31 (previously added): The method as claimed in claim 30, comprising the steps of:

- (a) incubating granulocytes suspended in RPMI medium with 0.05% Human Serum Albumin (RPMI/HSA) with CHIPS-containing material for 30 min. at 37°C;
- (b) placing the granulocytes on ice and washing them once in RPMI/HSA at 4°C;
- (c) resuspending the granulocytes in fresh RPMI/HSA medium;
- (d) incubating the granulocytes with fluorescently labeled fMLP and/or C5a in order to effect binding of the labeled fMLP and/or C5a to the granulocytes;
- (e) washing away the unbound fluorescent label; and
- (f) analysing the binding of the fluorescent fMPL and/or C5a to the granulocytes by measuring the fluorescence.